

Budd Inlet Dissolved Oxygen TMDL

November 2016

Advisory Committee Update

Budd Inlet Modeling

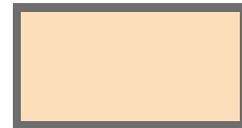
- Use 303(d) grid to combine model cells
- Shallow areas: combine entire water column for layers with water at low tide
- Deeper areas: combine the bottom half of water column



Water Quality Standards



Outer Budd Inlet: 6mg/L

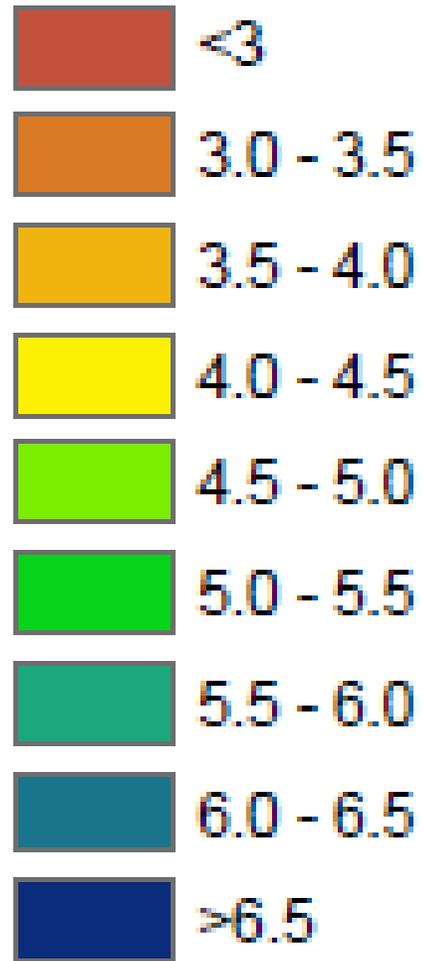


Inner Budd Inlet: 5 mg/L

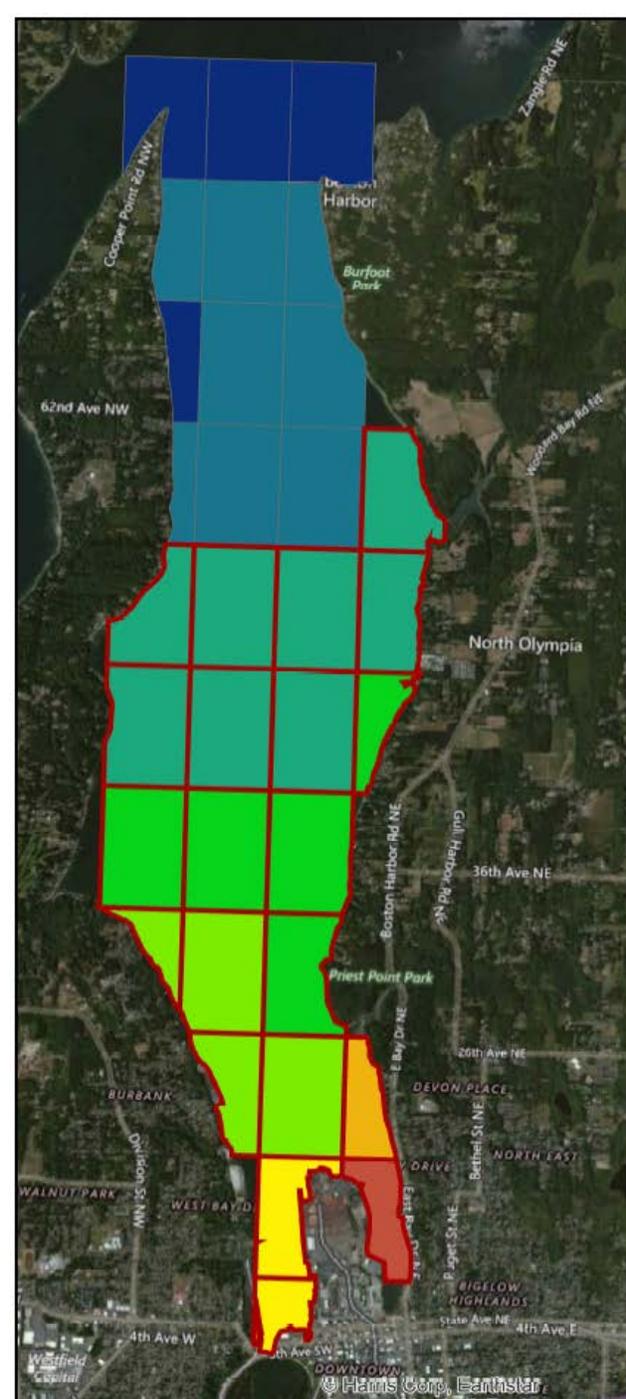


Existing Dissolved Oxygen

Modeled existing
dissolved oxygen
concentrations in mg/L
on the day with lowest
dissolved oxygen.



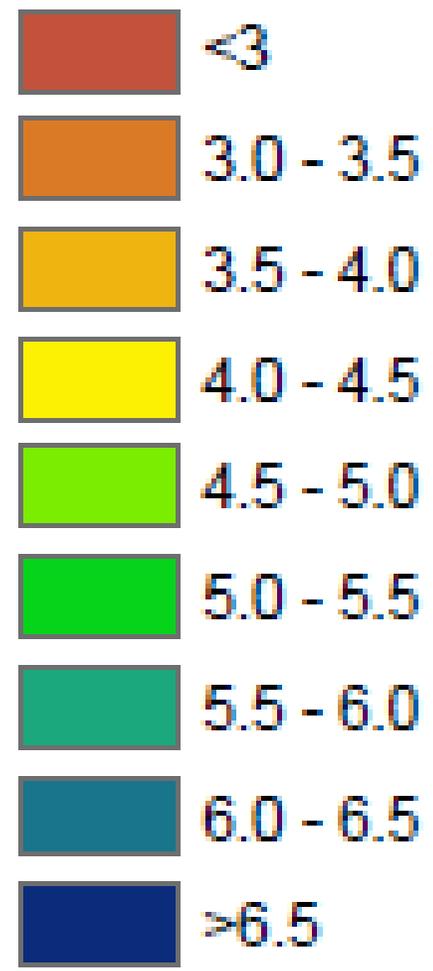
 Violations of WQS



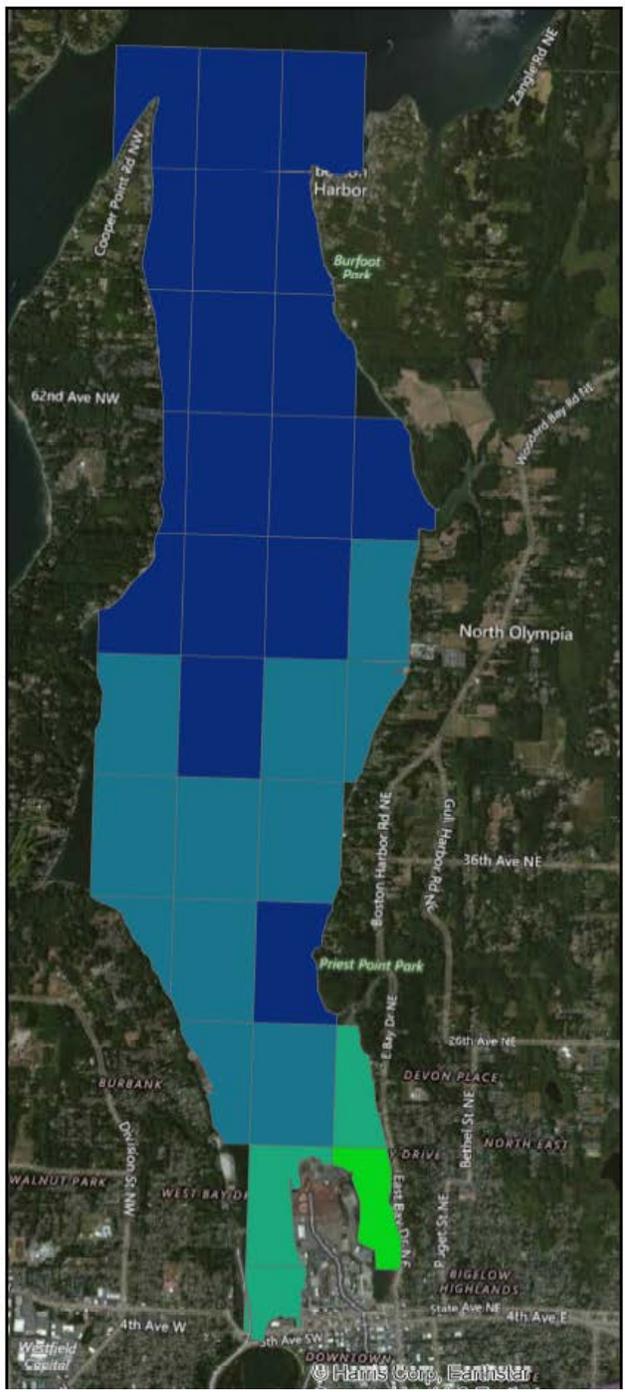
Natural Dissolved Oxygen

Modeled natural dissolved oxygen concentrations in mg/L on the day with lowest dissolved oxygen.

Note: no violations

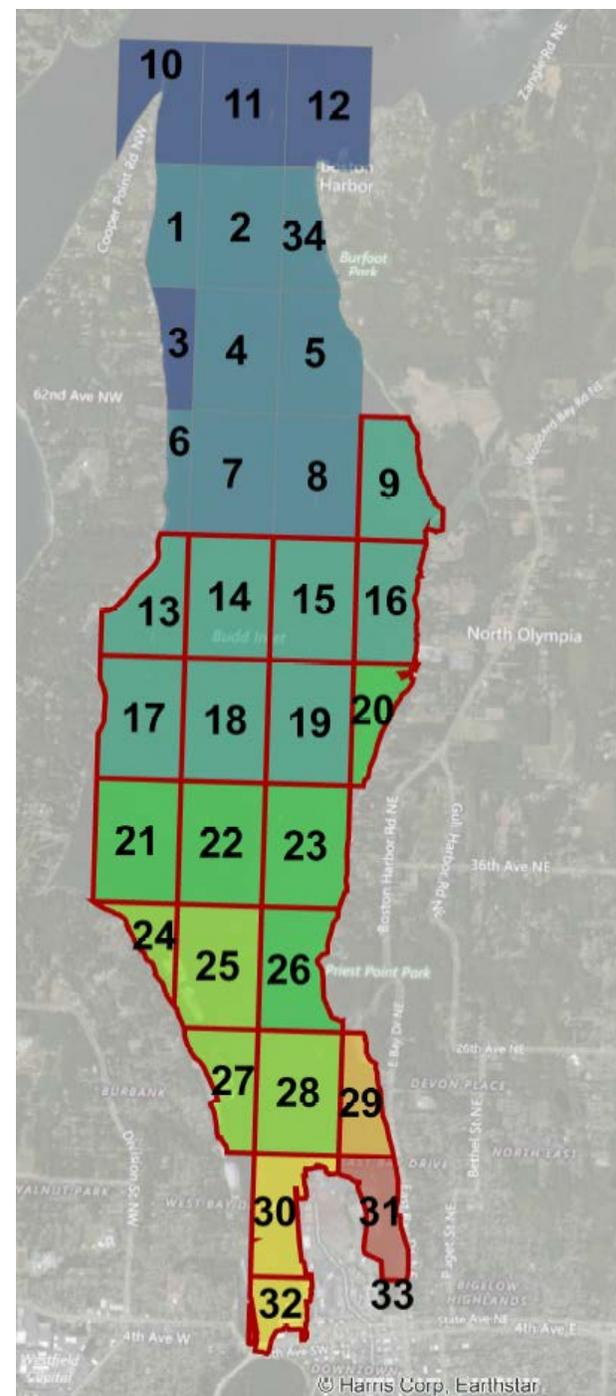


 Violations of WQS



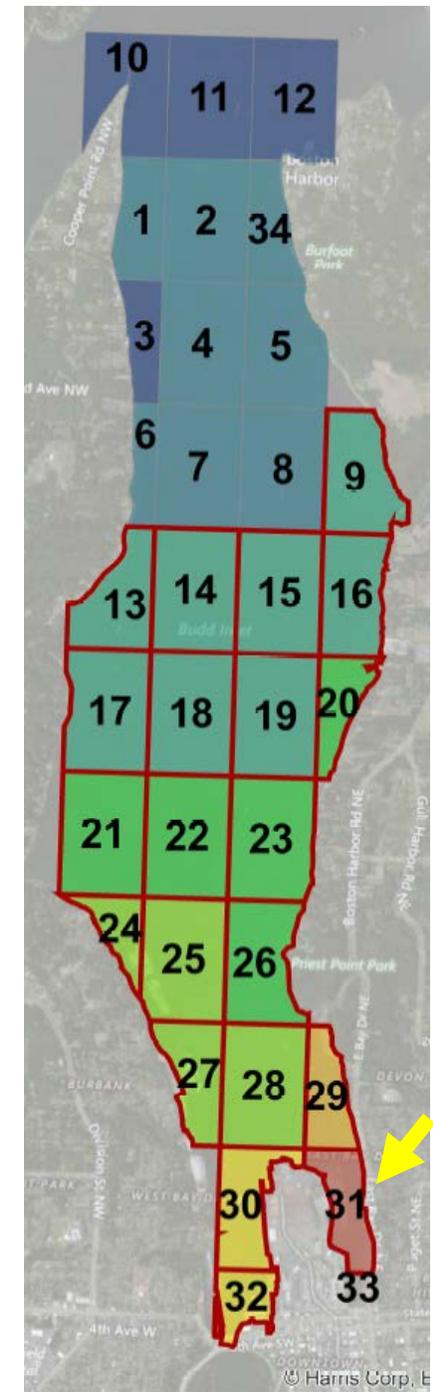
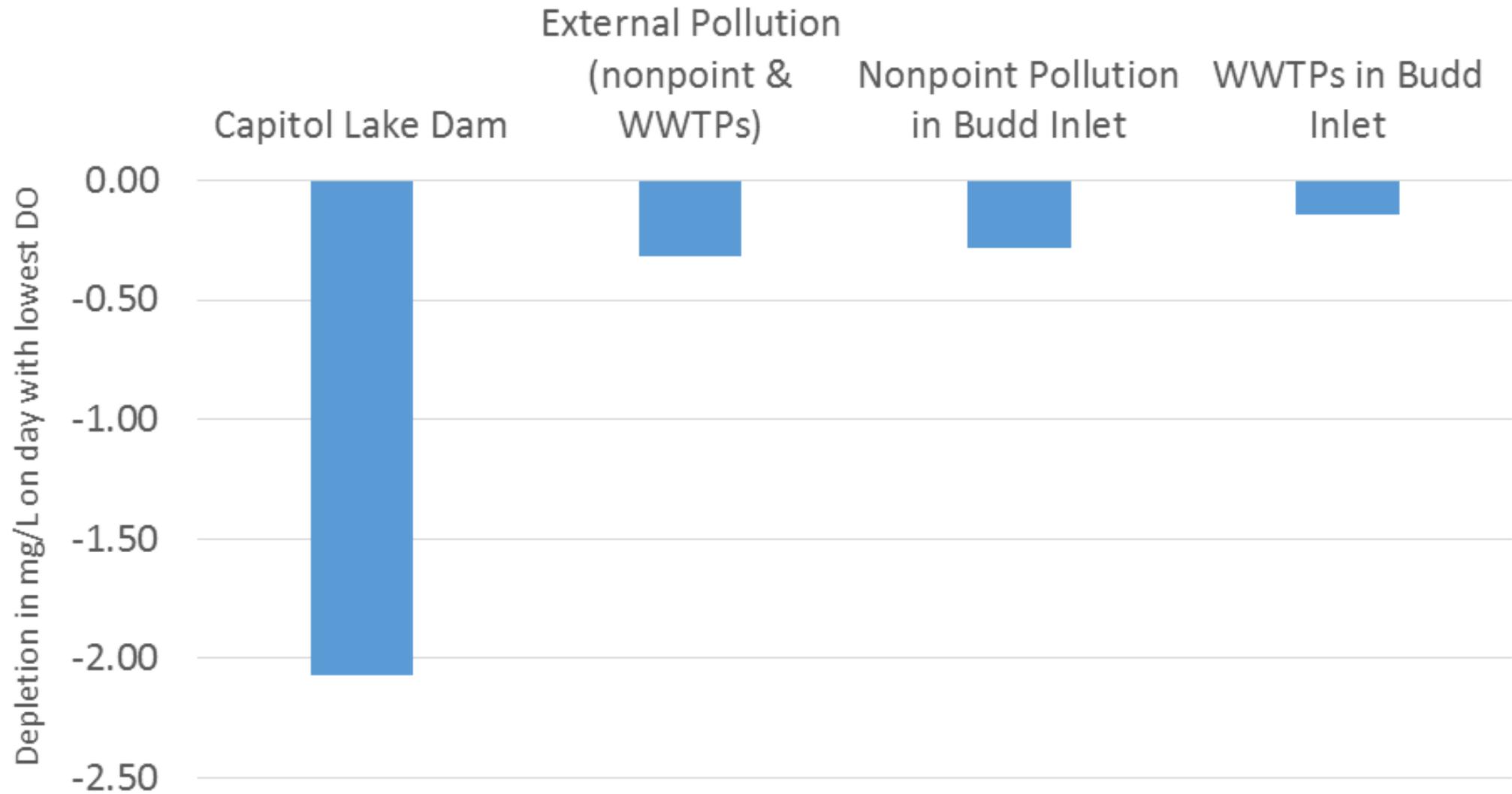
Looking at a few key spots....

Grid cells 8, 15, 25, 29, & 31



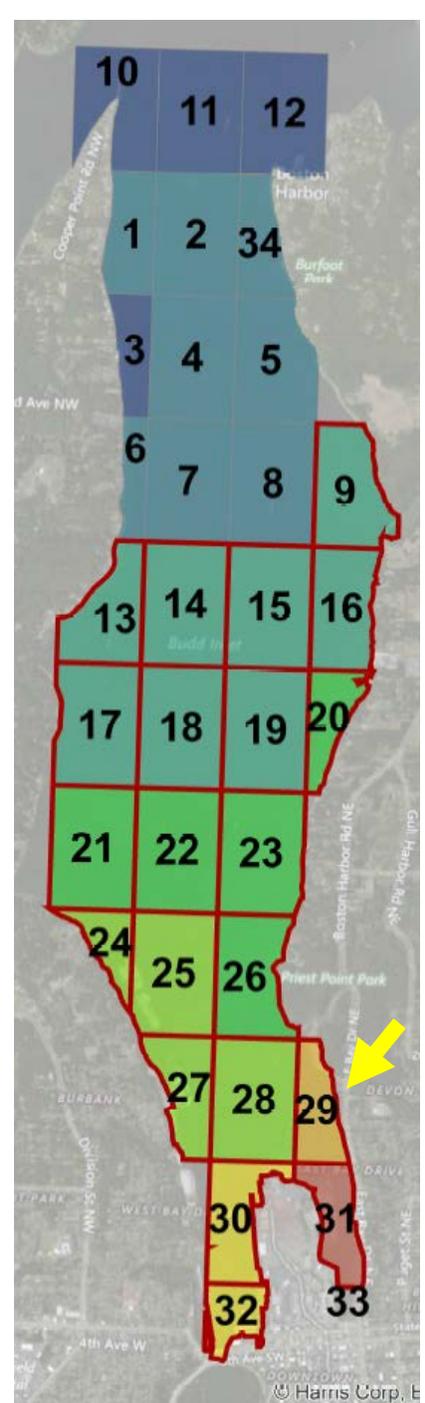
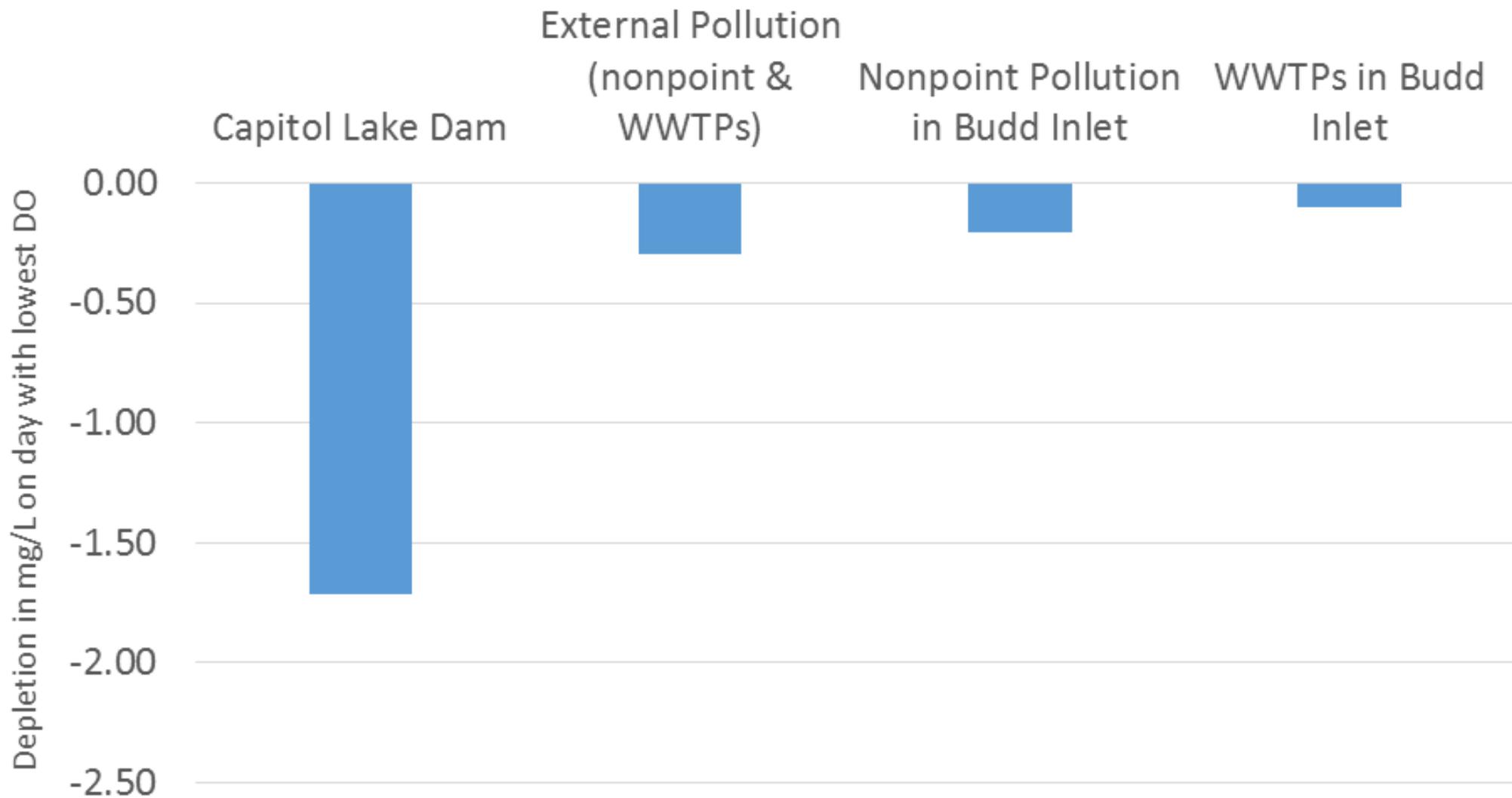
Total Depletion in Dissolved Oxygen in Cell 31

(in mg/L on day with lowest DO)



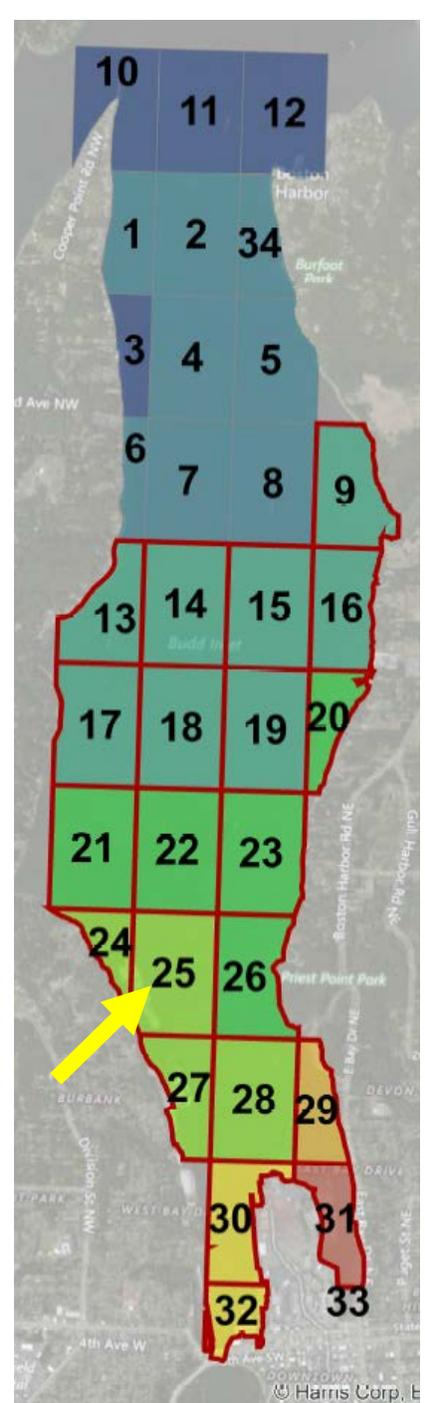
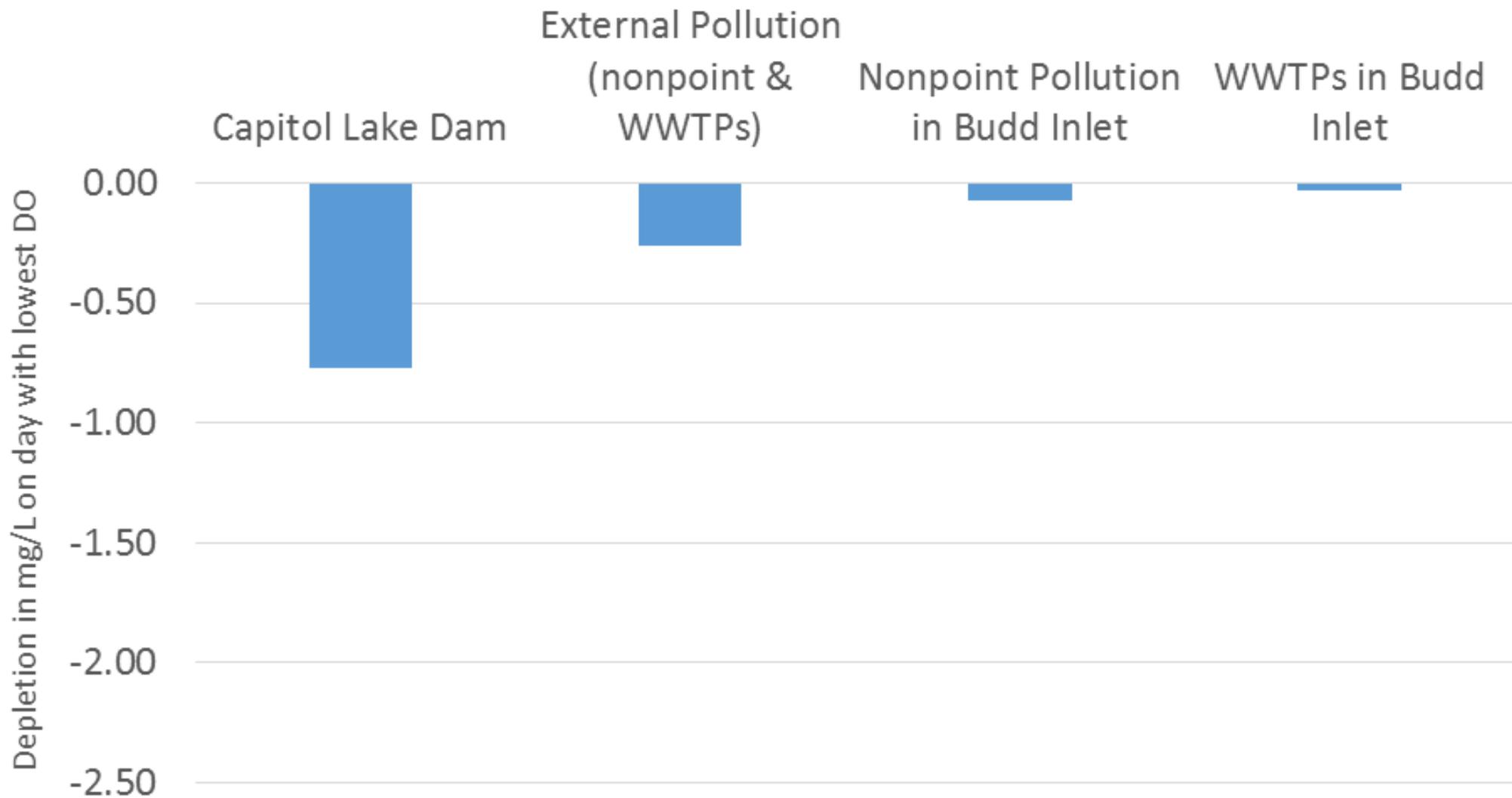
Total Depletion in Dissolved Oxygen in Cell 29

(in mg/L on day with lowest DO)



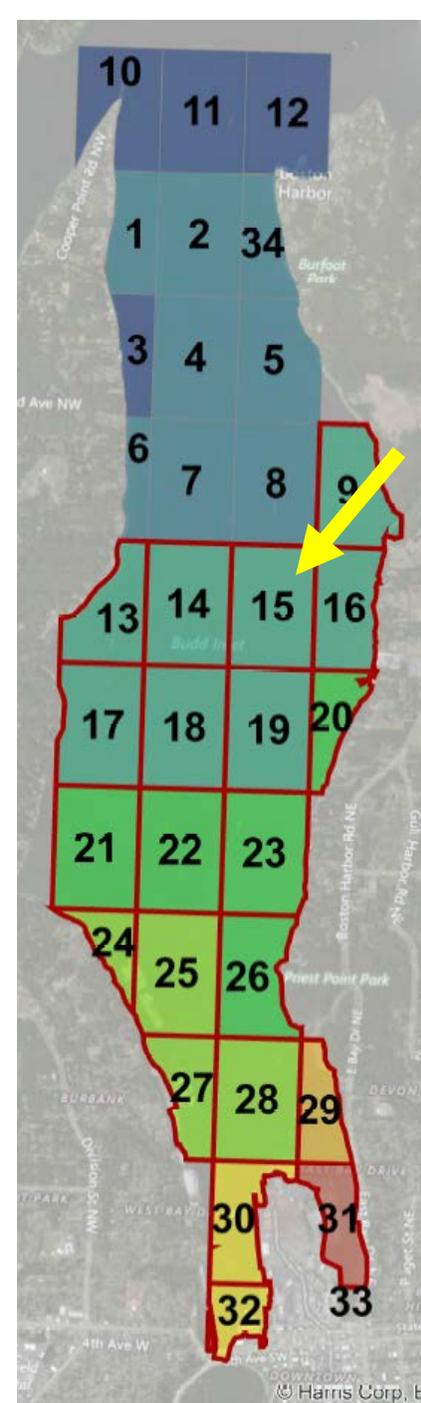
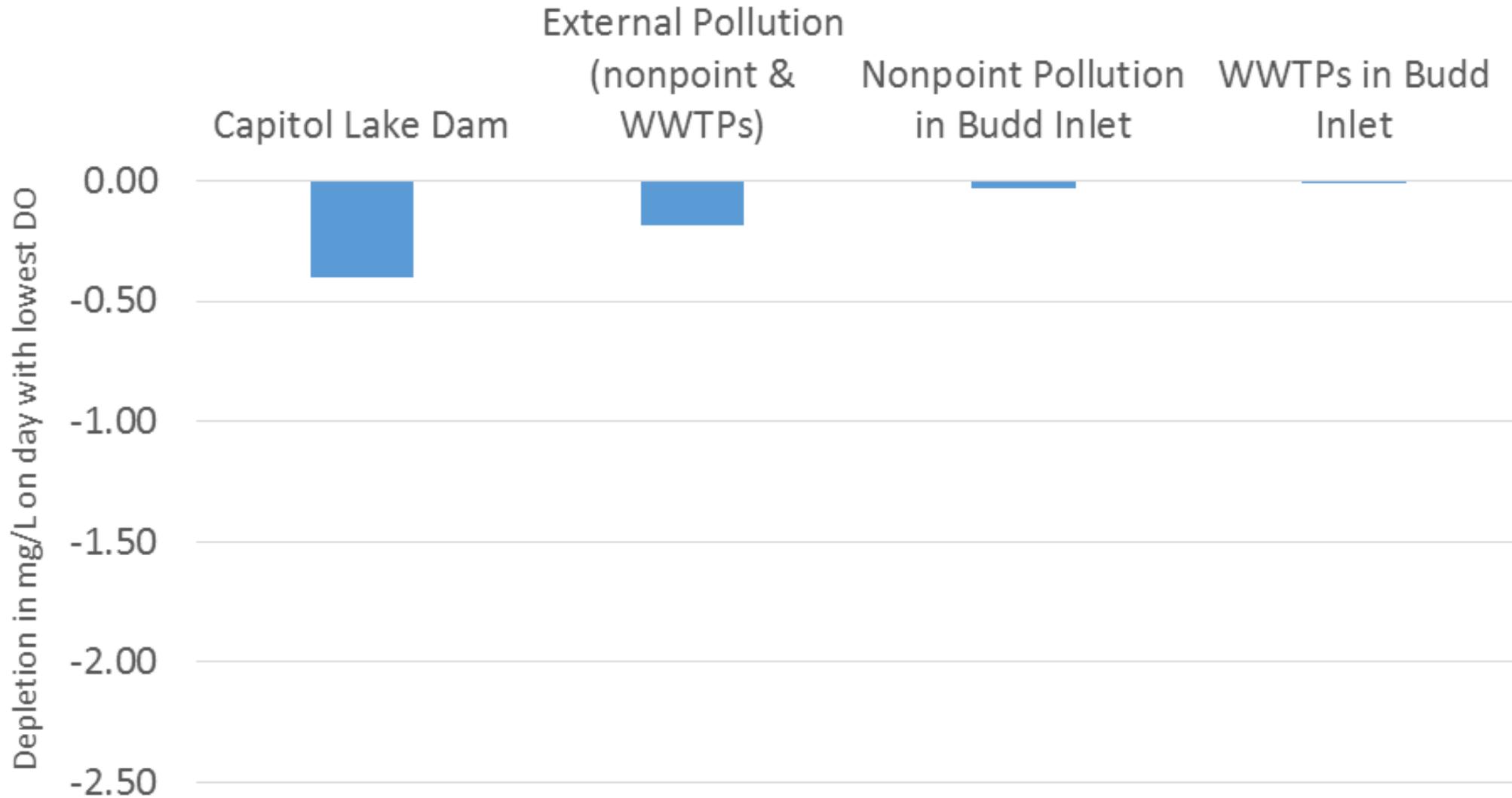
Total Depletion in Dissolved Oxygen in Cell 25

(in mg/L on day with lowest DO)



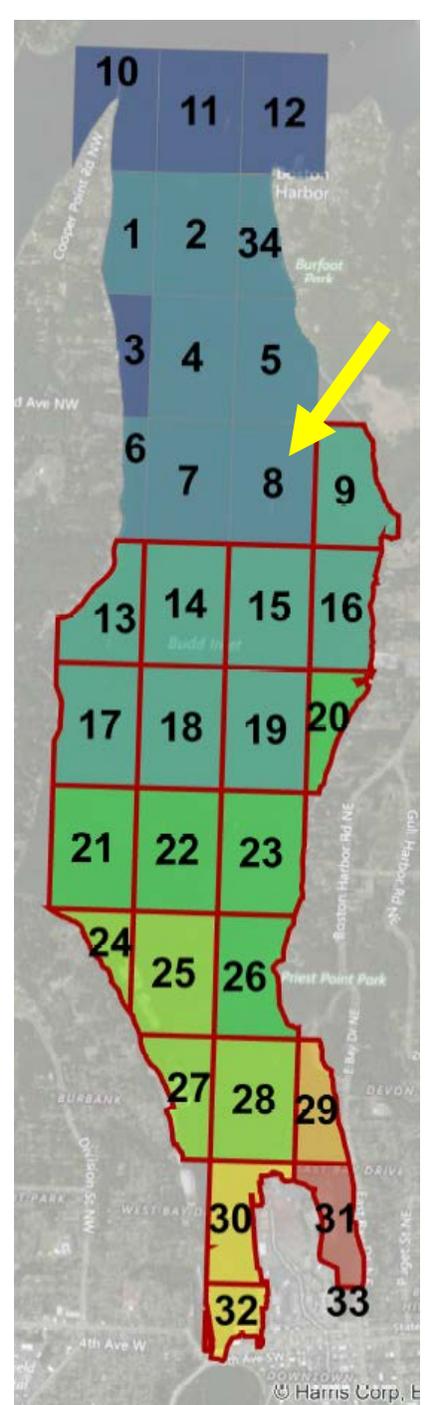
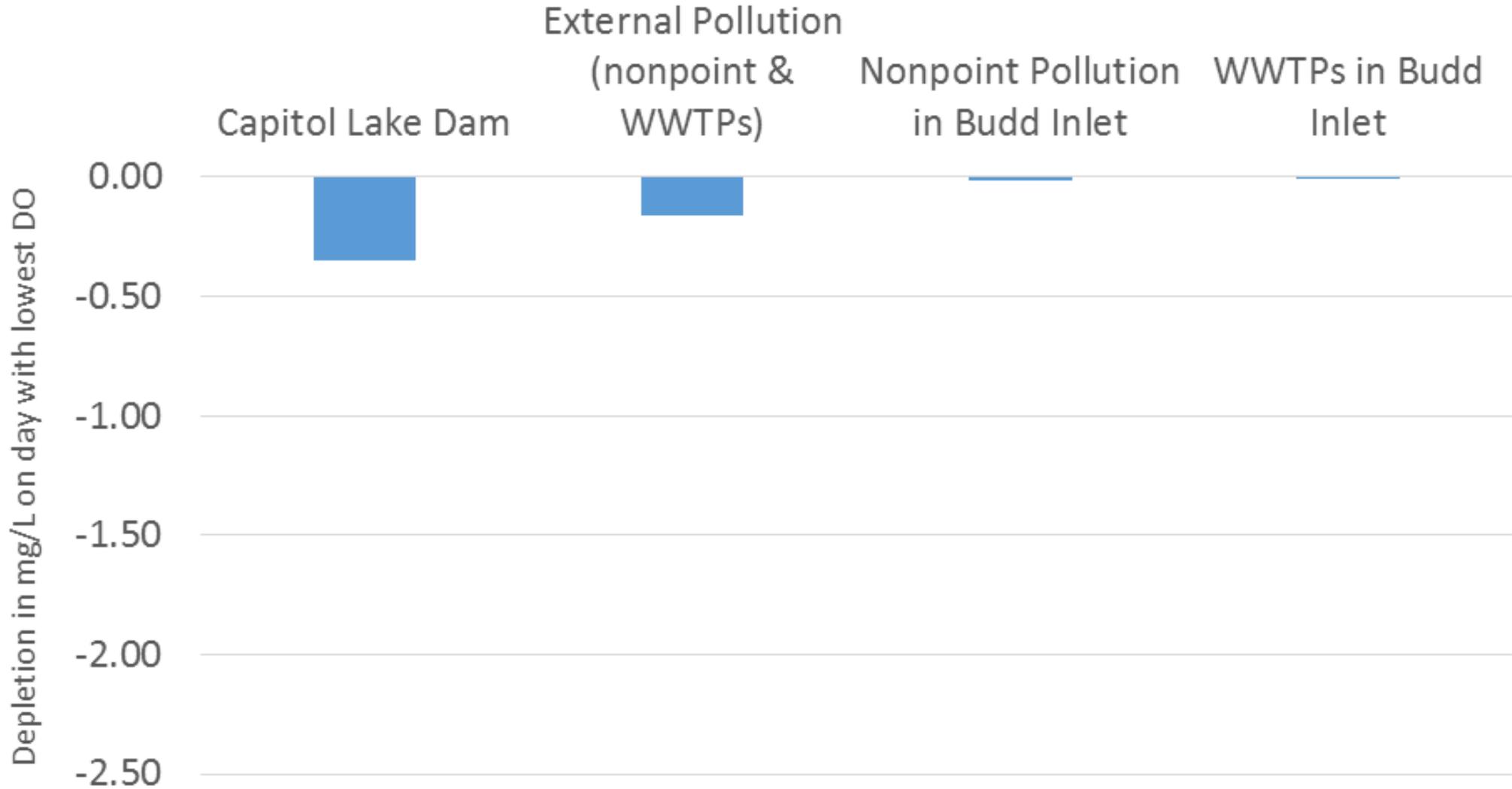
Total Depletion in Dissolved Oxygen in Cell 15

(in mg/L on day with lowest DO)

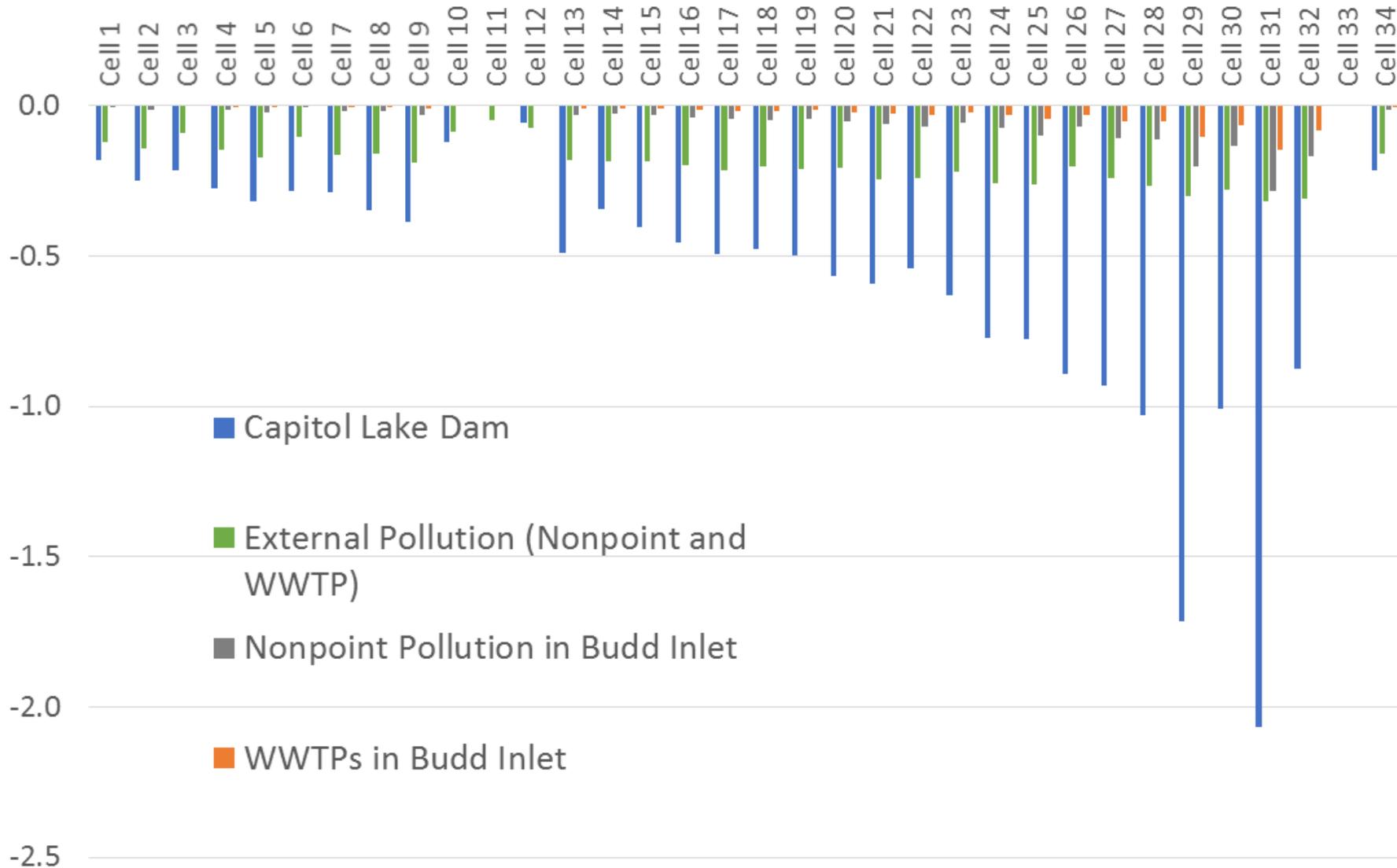


Total Depletion in Dissolved Oxygen in Cell 8

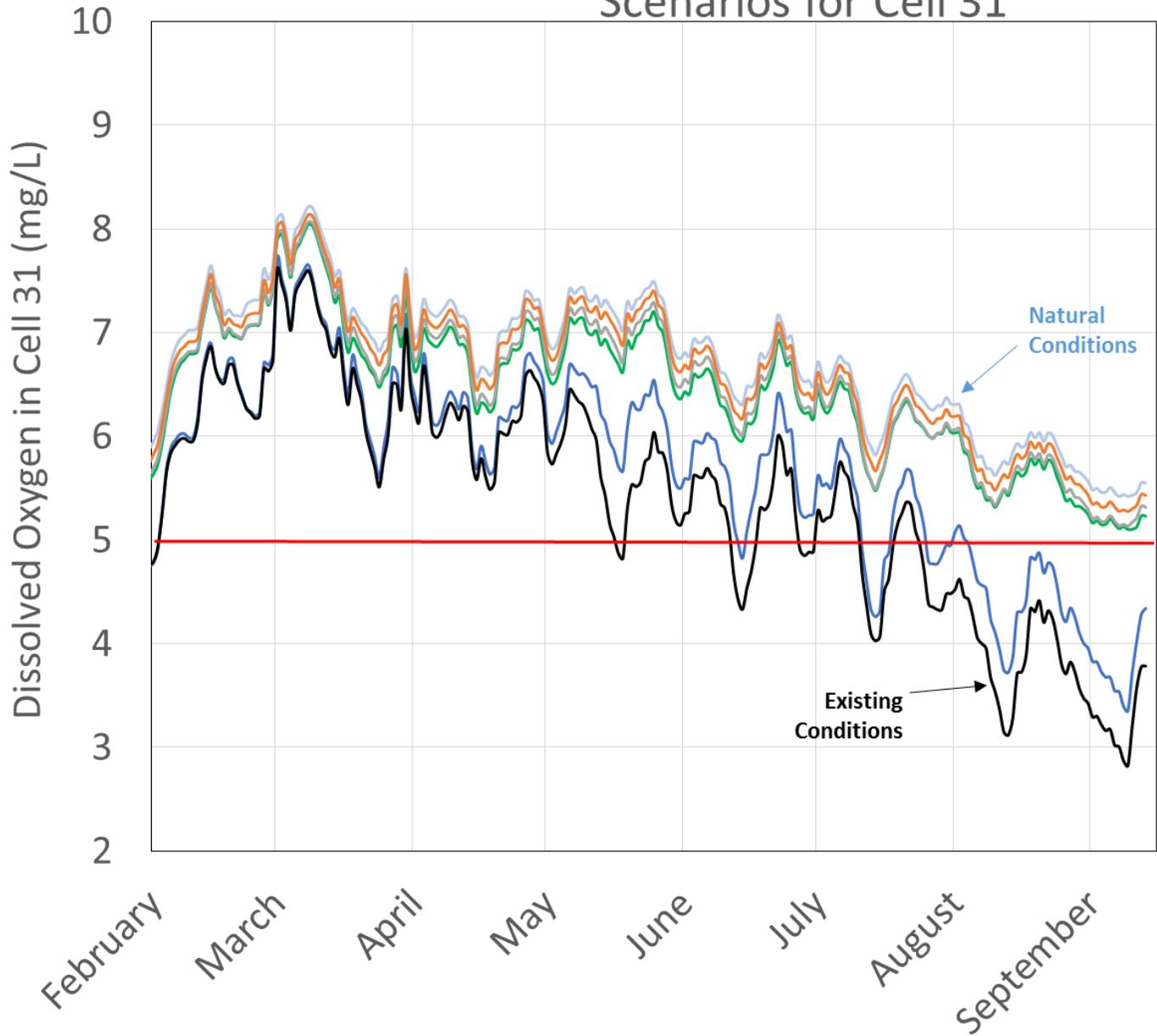
(in mg/L on day with lowest DO)



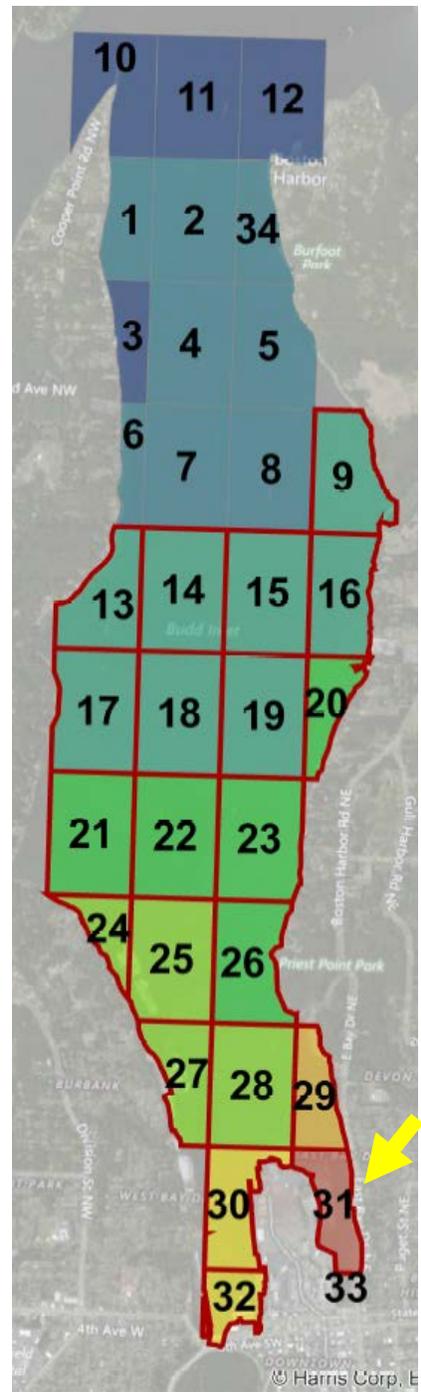
Total Depletion in Dissolved Oxygen (in mg/L on day with lowest DO)



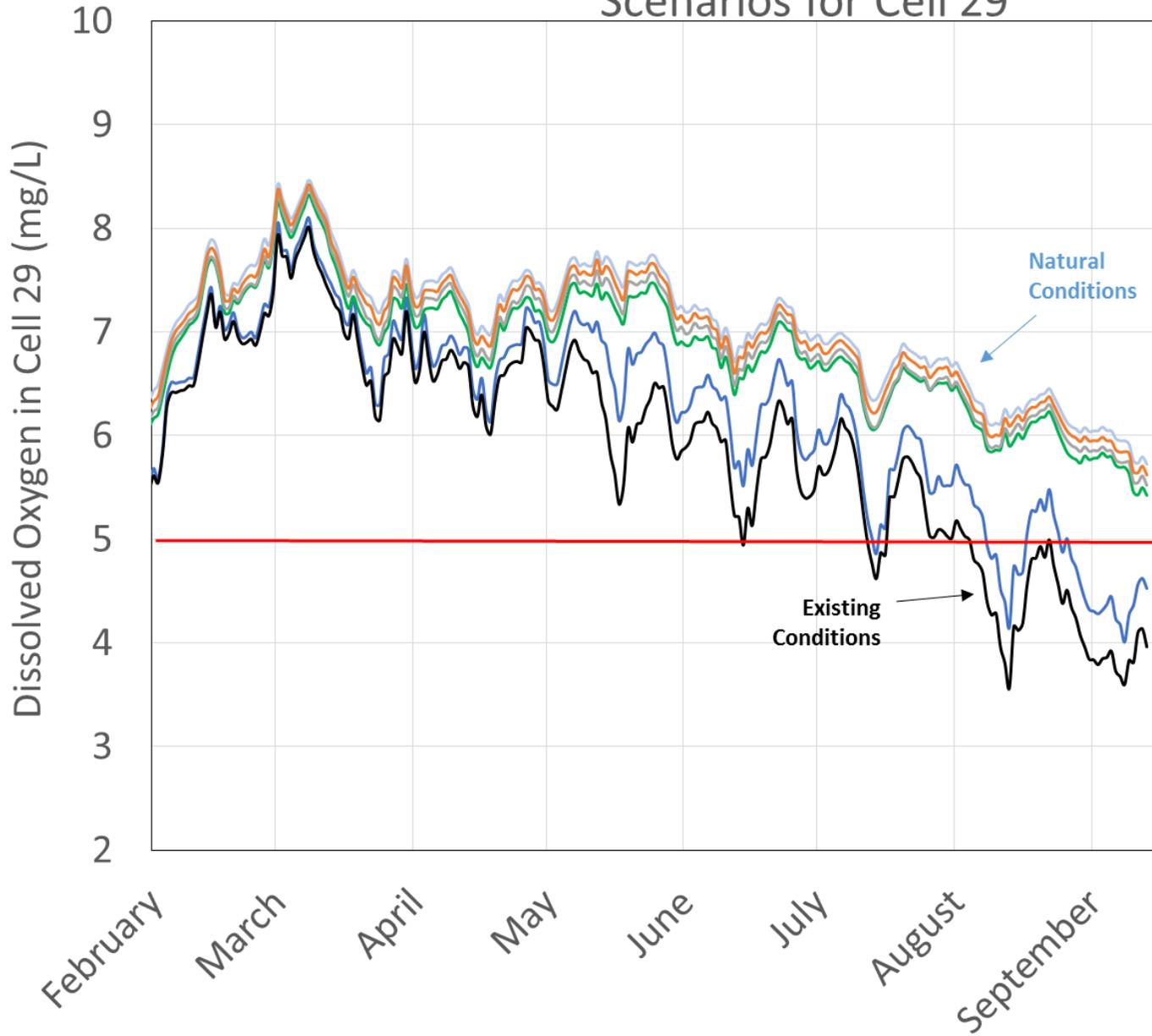
Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 31



- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



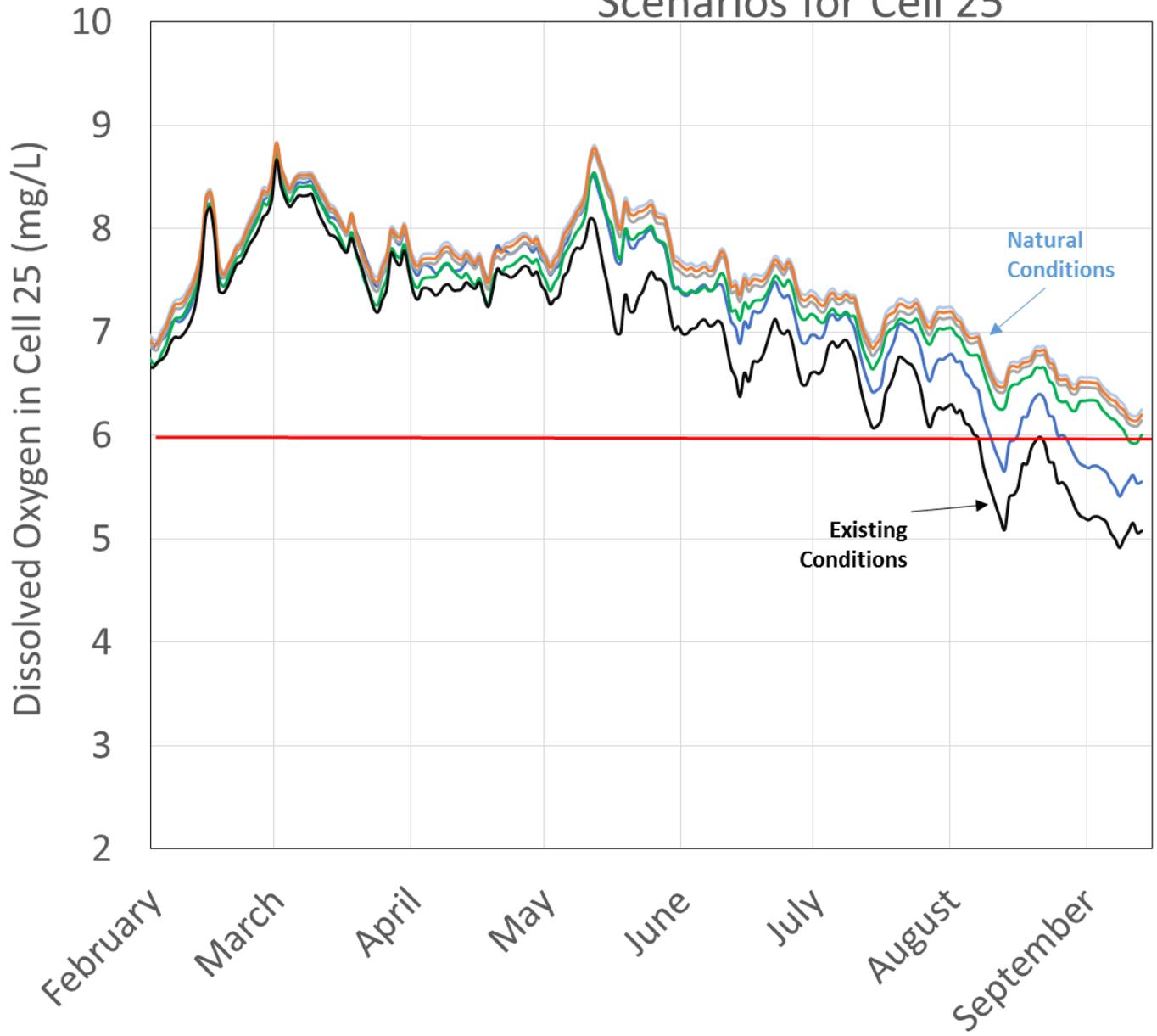
Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 29



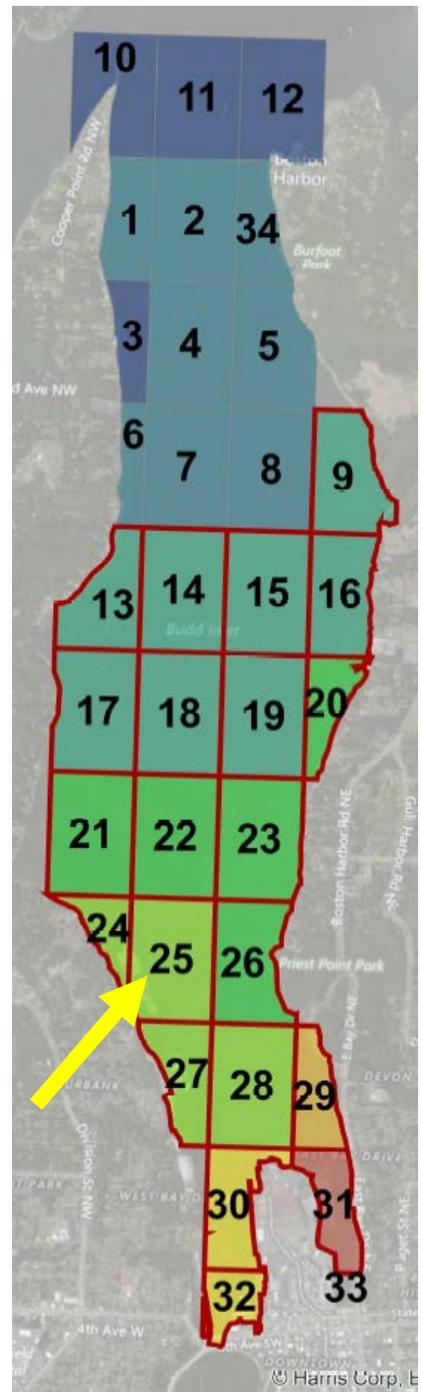
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



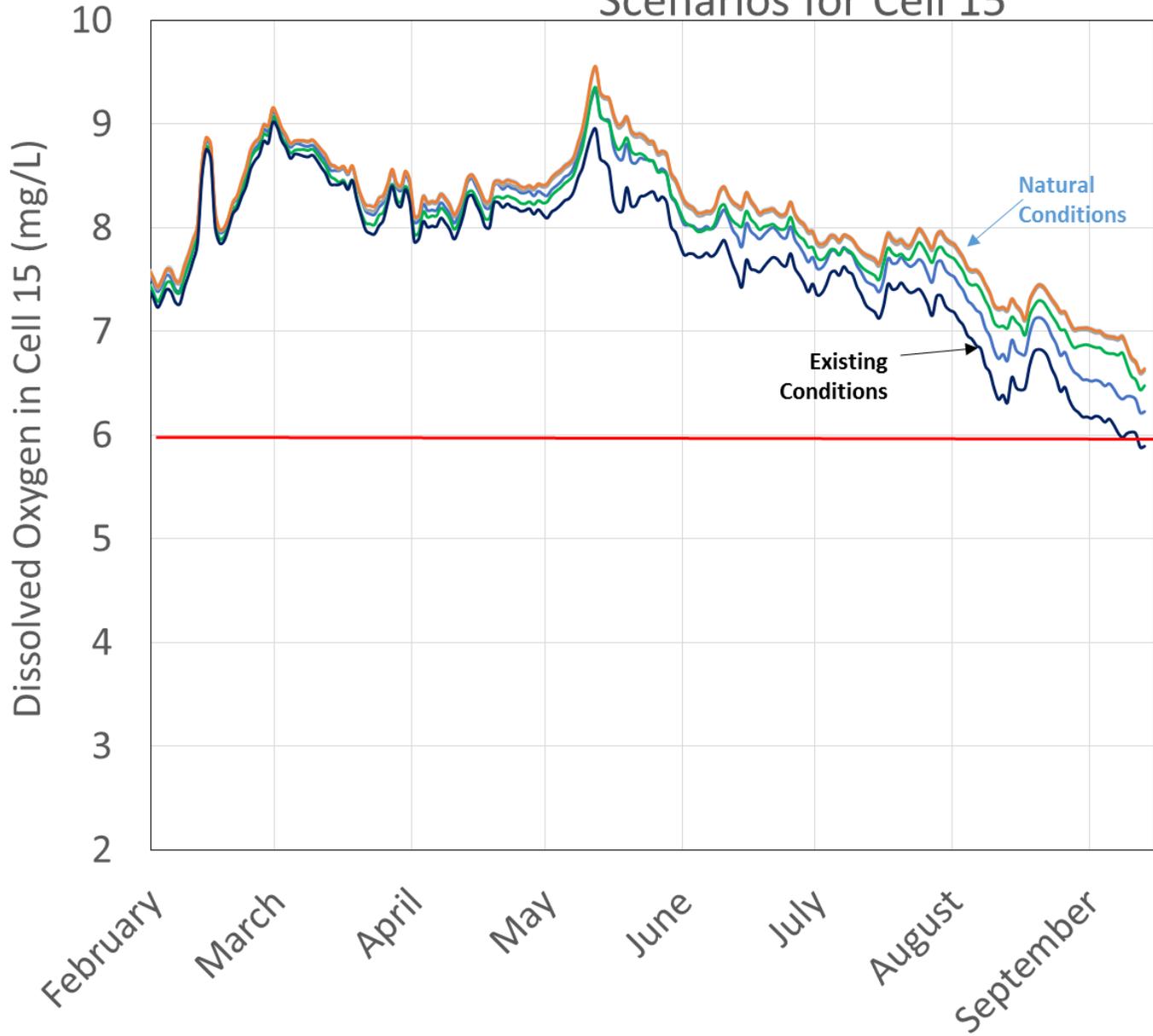
Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 25



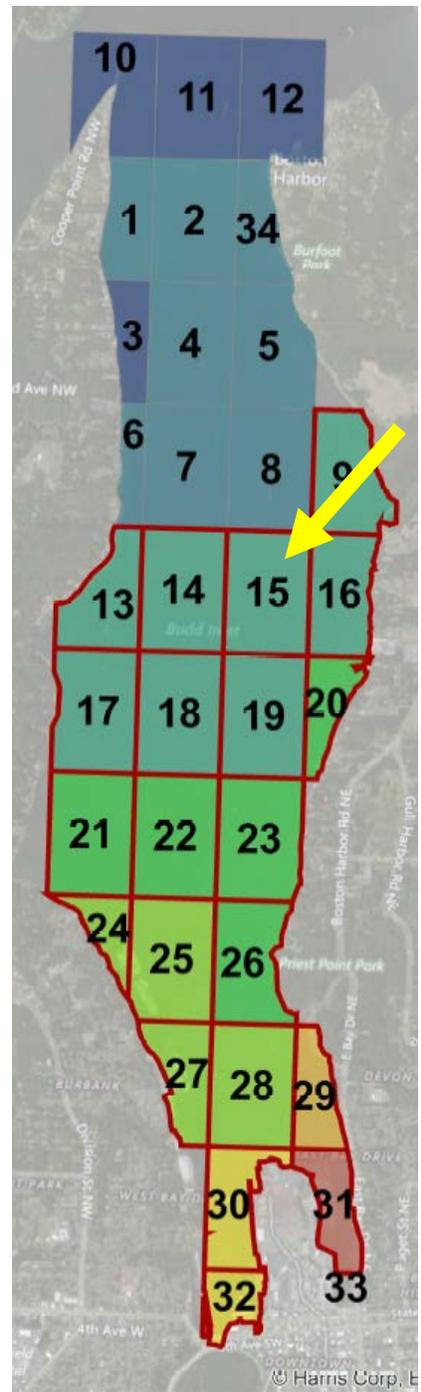
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



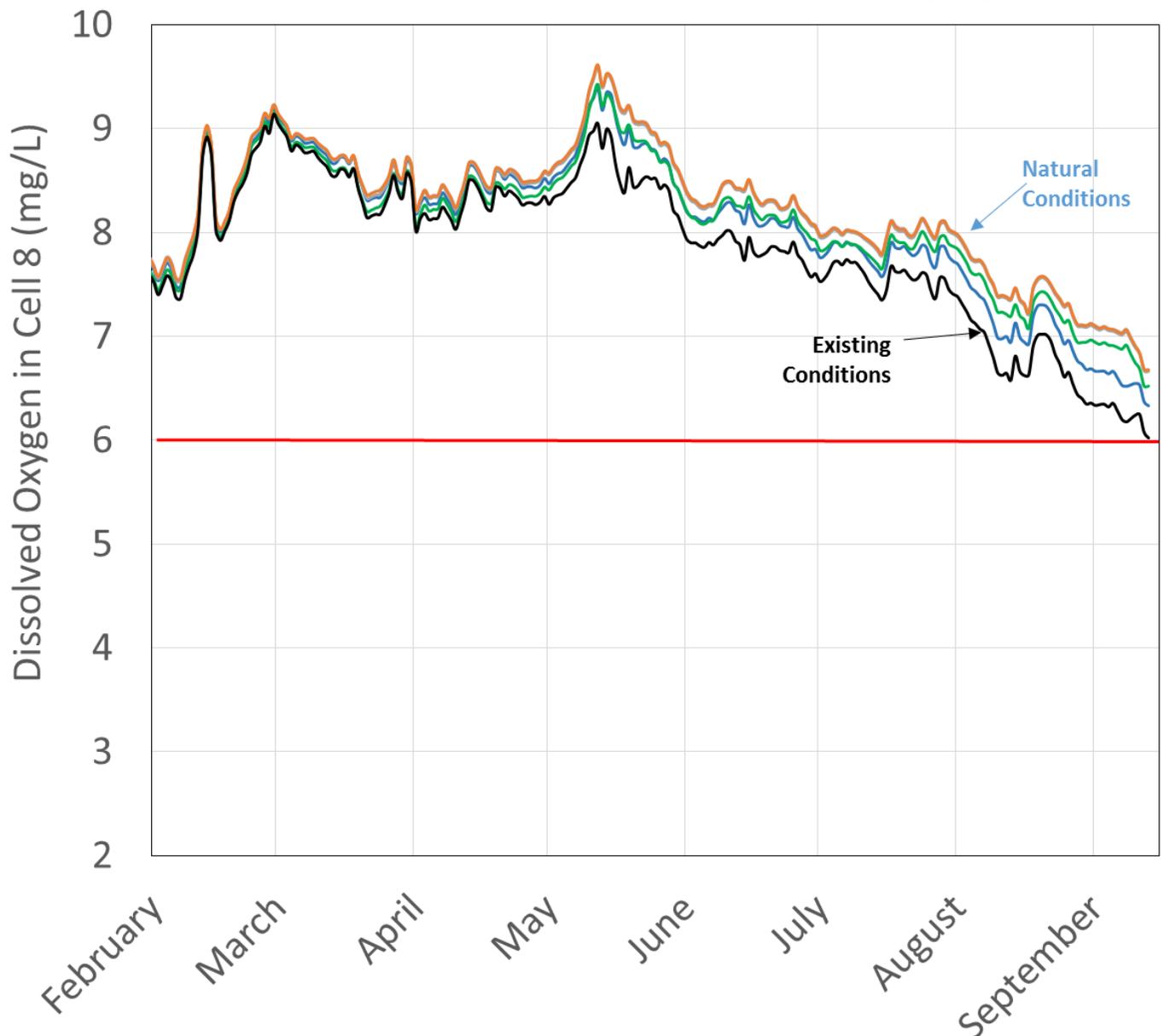
Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 15



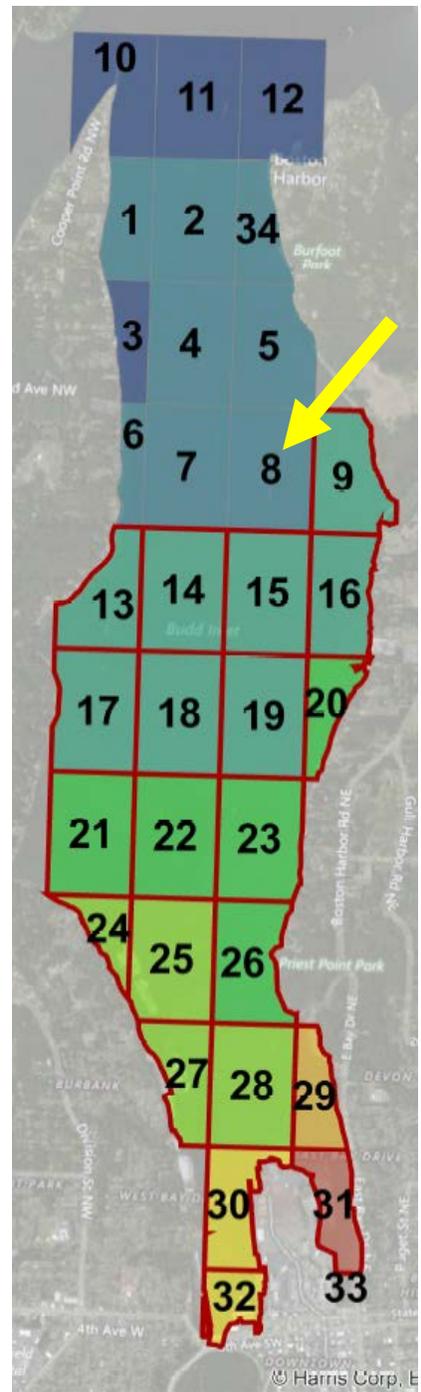
- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



Predicted Dissolved Oxygen Concentrations under Different Scenarios for Cell 8



- Capitol Lake Dam
- External Pollution (nonpoint & WWTPs)
- Nonpoint Pollution in Budd Inlet
- WWTPs in Budd Inlet



Next Steps

- Still working on external pollution sources (nonpoint & individual WWTPs)
- Hire TMDL Lead
- Work with DES and LOTT

